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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
DAVIS, TEMICA M

ART UNIT	PAPER NUMBER
2685	

DATE MAILED: 01/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.	Applicant(s)
09/263,402	Heinonen et al.
Examiner	**Art Unit**
Temica M. Davis	2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Jan 7, 2002

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-24 is/are pending in the applica

4a) Of the above, claim(s) _____ is/are withdrawn from considera

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-24 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirem

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

DETAILED ACTION

Reassignment Affecting Application Location

1. The art unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to art unit 2685.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 13 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 13 and 17, it is unclear if the user terminal device or the measuring system is configured to send a message to the user terminal device if the set threshold value is exceeded. Clarification is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grube et al, U.S. Patent No. 6,031,455.

Regarding claim 1, Grube discloses a system for performing environmental measurements and for transferring measuring data, wherein the system comprises a plurality infrastructure equipment (18, 20, 24, 30, 32 and 34) of a cellular radio system, the infrastructure equipment having means for transferring data in the cellular radio system (figure 1), a plurality of environmental measuring stations each being connected to one of the plurality of infrastructure equipment (figure 1), the measuring stations comprising measuring means for performing environmental measurements (col. 3, lines 4-20), and control means for transferring measuring data to the respective infrastructure that it is connected to for transferring the measuring data further over said cellular radio system (col. 3, lines 40-57), a central equipment connected to the cellular radio system for collecting environmental measuring data from the plurality of environmental measuring stations of the cellular radio system (col. 3, lines 4-26), and terminal devices of the cellular radio system for receiving data relating to the environmental measurements via the cellular radio system (col. 3, lines 40-57).

Grube, however, fails to specifically disclose wherein each environmental measuring station is physically placed on the same site as and connected to base stations, wherein each base station forms a cell and the plurality of base stations form a cellular network.

Grube does teach, however, that by using wireless communication devices, centralized processing of the environmental conditions sensed can be provide users of the system customized warnings (col. 8, lines 25-27). Grube also teaches that the measuring stations can be equipped with GPS receivers wherein its location, along with the sensed environmental conditions, can be forwarded to the infrastructure equipment (col. 5, lines 43-48). This inherently would provide a larger area in which possible hazardous conditions could be made known to a user of the system, as opposed to if the measuring station was only located in the base station, in which only a smaller area of sensed conditions could be made known to a user.

Grube also teachings that the sensors used for detecting certain environmental conditions can be equipped on/in various devices such as cell phones, portable radios, etc., ***and/or any other device which transmits or receives data via a wireless communication path***. Also since the system of Grube is designed for the cellular environment (col. 2, line 65-col. 3, line 3), it is inherent to the cellular system for base stations to form cells.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, to place the measuring stations physically at base stations since it is well known in the art that base stations communicate over a wireless communication path, and further, placing the measuring stations at the base station would have been an obvious design choice based on needed performance of the designer of the system.

Regarding claim 2, the combination Grube discloses a system according to claim 1, wherein the system comprises a data adapter for adapting the data transferred from the measuring

station to the infrastructure into a format suitable for the infrastructure and correspondingly for adapting the data coming from the infrastructure to the measuring station into a format suitable for the measuring station as evidenced by the fact that all of the entities in the system are able to communicate with each other (figure 1).

Regarding claim 3, the Grube discloses a system according to claim 1, wherein it comprises in said central equipment means for collecting announcements that are sorted regionally and are based upon the collected measuring data, and for transmitting said announcements to terminal devices over the cellular radio system (col. 4, line 50-col. 5, line 8; figure 3).

Regarding claim 4, Grube discloses a system according to claim 1, wherein the control means of one of the plurality of environmental measuring stations have been arranged to transfer measuring data to a terminal device being in the coverage area of the infrastructure (figures 1 and 3).

Regarding claim 5, Grube discloses a system according to claim 1, wherein at least one of said plurality of environmental measuring stations comprises a memory for storing at least one predetermined alarm limit in connection with a certain measurement and means for comparing the measuring data obtained based upon a measurement performed by the measuring means with said alarm limit and for generating an alarm signal when said alarm limit is exceeded (col. 3, lines 16-20, col. 3, lines 54-57 and col. 6, line 4-14).

Regarding claim 6, Grube discloses a system according to claim 1, wherein the system has been arranged to transfer said measuring data in a data call or in a short-message over the cellular radio system (col. 2, line 65-col. 3, line 3).

Regarding claim 22, Grube discloses the system according to claim 1. Grube, however, fails to specifically disclose wherein each base station is fixed in position.

The examiner contends, however, that fixed base stations are well known in the art, and the examiner takes official notice as such.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to use fixed base stations, as it would have been a logical engineering preference.

Regarding claim 7, Grube discloses a system for performing environmental measurements and for transferring measuring data, wherein the method comprises the steps of performing environmental measurements in connection with infrastructure equipment of a cellular radio system (figure 1), the infrastructure equipment having means for transferring data in the cellular radio system (col. 3, lines 40-57), collecting said results at a central location from the environmental measuring station (col. 3, lines 40-57; figure 1), transferring data relating to the environmental measurements to a terminal device of the cellular radio system (col. 3, lines 40-57; figure 1).

Grube, however, fails to specifically disclose wherein each environmental measuring station is physically placed on the same site as and connected to a base station, wherein the base station forms a cell of a cellular network.

Grube does teach, however, that by using wireless communication devices, centralized processing of the environmental conditions sensed can be provide users of the system customized warnings (col. 8, lines 25-27). Grube also teaches that the measuring stations can be equipped with GPS receivers wherein its location, along with the sensed environmental conditions, can be forwarded to the infrastructure equipment (col. 5, lines 43-48). This inherently would provide a larger area in which possible hazardous conditions could be made known to a user of the system, as opposed to if the measuring station was only located in the base station, in which only a smaller area of sensed conditions could be made known to a user.

Grube also teachings that the sensors used for detecting certain environmental conditions can be equipped on/in various devices such as cell phones, portable radios, etc., ***and/or any other device which transmits or receives data via a wireless communication path***. Also since the system of Grube is designed for the cellular environment (col. 2, line 65-col. 3, line 3), it is inherent to the cellular system for base stations to form cells.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, to place the measuring stations physically at base stations since it is well known in the art that base stations communicate over a wireless communication path, and further, placing the measuring stations at the base station would have been an obvious design choice based on needed performance of the designer of the system.

Regarding claim 8, Grube discloses a method according to claim 7, wherein the method further comprises a step of collecting said results through the cellular radio system from

environmental measurements at several infrastructures and creating a regional measuring result based upon them (col. 4, line 50-col. 5, line 8; figure 3).

Regarding claim 9, Grube discloses a method according to claim 7, wherein the method comprises transferring said results over the infrastructure to a terminal device being in the coverage area of the infrastructure (figures 1 and 3).

Regarding claim 10, Grube discloses a method according to claim 9, wherein the method comprises setting an alarm limit for a certain measurement and transferring said results over the infrastructure to the terminal device as a response to the measured environmental data exceeding said alarm limit (col. 3, lines 16-20, col. 3, lines 54-57 and col. 6, line 4-14).

Regarding claim 11, Grube discloses a method according to claim 7, wherein the method comprises transferring said results in a data call or in a short-message over the cellular radio system (col. 2, line 65-col. 3, line 3).

Regarding claim 12, Grube discloses a system according to claim 5, and further reads on wherein the measuring station is configured to automatically send alarm signal to the central equipment (col. 4, lines 28-49).

Regarding claim 13, in view of the 112 rejection above, the examiner will interpret the claim language of claim 13 as best understood. Grube discloses a system according to claim 1, and further reads on wherein the measuring system is configured to allow a user of the terminal device to set a personal threshold value in the measuring system, and the terminal device of the

user is configured to send through the base station a personal message to the user's terminal device if the set threshold value is exceeded (col. 3, lines 4-25).

Regarding claim 14, Grube discloses a system according to claim 1, and further reads on wherein the measuring system is configured to allow a user of the terminal device to set an individual alarm limit with the terminal device, and the terminal device is configured to send, via the infrastructure to the measuring, said set individual alarm limit when the terminal device is within the area of the infrastructure (col. 3, lines 4-25 and col. 5, lines 37-48).

Regarding claim 15, Grube discloses wherein the individual alarm limit is a pollen concentration value (col. 3, lines 20-26; figure 3).

Regarding claim 16, Grube discloses a system according to claim 14, and reads on wherein the terminal device is configured to automatically send, via the infrastructure to the measuring stations said set individual alarm limit upon arriving in the area of the infrastructure (col. 3, lines 4-26, col. 5, lines 37-48; figures 1 and 3).

Regarding claim 17, in view of the 112 rejection above, the examiner will interpret the claim language of claim 17 as best understood, Grube discloses a method according to claim 7, and further reads on comprising a step by a user, of setting the terminal device to a personal threshold value and a step by the terminal device, of sending through the infrastructure a personal message to the user's terminal if the set threshold value is exceeded (col. 3, lines 4-25).

Regarding claim 18, Grube discloses a method according to claim 17, further comprising a step by the user of setting at the terminal device an individual alarm limit and a step by the

terminal device of sending via the infrastructure to the measuring station, said set individual alarm limit when the terminal device is within the area of the infrastructure (col. 3, lines 4-25 and col. 5, lines 37-48).

Regarding claim 19, Grube discloses wherein the individual alarm limit is a pollen concentration value (col. 3, lines 20-26; figure 3).

Regarding claim 20, Grube discloses a method of claim 18, wherein the terminal device is configured to automatically send, via the infrastructure to the measuring station, said set individual alarm limit upon arriving in the area of the base station (col. 3, lines 4-26, col. 5, lines 37-48; figures 1 and 3).

Regarding claim 21, Grube discloses a method according to claim 18, wherein the terminal device is configured to automatically send said alarm limit to central equipment of the cellular radio system (col. 4, lines 28-49).

Regarding claim 23, Grube discloses a system for performing environmental measurements and for transferring measuring data, wherein the system comprises a plurality infrastructure equipment (18, 20, 24, 30, 32 and 34) of a cellular radio system, the infrastructure equipment having means for transferring data in the cellular radio system (figure 1), a plurality of environmental measuring stations each communicating with and having a common location with respect to the infrastructure (col. 5, lines 37-49; figure 1), the measuring stations performing environmental measurements (col. 3, lines 4-20) and having a data interface for communication

of data of an environmental measurement with respect to the infrastructure equipment (col. 3, lines 40-57), a central equipment connected to the cellular radio system for collecting environmental measuring data from the plurality of environmental measuring stations of the cellular radio system (col. 3, lines 4-26), and wherein the terminal devices are employed by users of the network for receiving data relating to the environmental measurements via the cellular radio system (col. 3, lines 40-57; figures 1-3).

Grube, however, fails to specifically disclose wherein the environmental measuring data is collected through the base stations.

Grube does teach, however, that by using wireless communication devices, centralized processing of the environmental conditions sensed can be provide users of the system customized warnings (col. 8, lines 25-27). Grube also teaches that the measuring stations can be equipped with GPS receivers wherein its location, along with the sensed environmental conditions, can be forwarded to the infrastructure equipment (col. 5, lines 43-48). This inherently would provide a larger area in which possible hazardous conditions could be made known to a user of the system, as opposed to if the measuring station was only located in the base station, in which only a smaller area of sensed conditions could be made known to a user.

Grube also teachings that the sensors used for detecting certain environmental conditions can be equipped on/in various devices such as cell phones, portable radios, etc., ***and/or any other device which transmits or receives data via a wireless communication path***. Also since the

system of Grube is designed for the cellular environment (col. 2, line 65-col. 3, line 3), it is inherent to the cellular system for base stations to form cells.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, to place the measuring stations physically at base stations since it is well known in the art that base stations communicate over a wireless communication path, and further, placing the measuring stations at the base station would have been an obvious design choice based on needed performance of the designer of the system.

Regarding claim 24, Grube discloses a method for performing environmental measurements and for transferring measuring data, the method comprising the steps of providing users of a cellular radio network with terminal devices (col. 2, line 65-col. 3, line 3) for receipt of data relating to environmental measurements (col. 3, lines 4-26), the network inherently including a plurality of base stations in communication with the terminal devices as is well known in the art, the measuring stations performing environmental measurements by the terminals (col. 3, lines 4-20), transferring results representative of the measured environmental data to of the measured environmental data to infrastructure equipment (18, 20, 24, 30, 32 and 34) for further transfer via the network to the terminal devices (col. 3, lines 4-26), collecting said results at a central location from each of the measuring stations and transferring data relating to the environmental measurements from the central location via the network to individual ones of the terminal devices (col. 3, lines 40-57).

Grube, however, fails to specifically disclose wherein the environmental measuring data is collected through the base stations.

Grube does teach, however, that by using wireless communication devices, centralized processing of the environmental conditions sensed can be provide users of the system customized warnings (col. 8, lines 25-27). Grube also teaches that the measuring stations can be equipped with GPS receivers wherein its location, along with the sensed environmental conditions, can be forwarded to the infrastructure equipment (col. 5, lines 43-48). This inherently would provide a larger area in which possible hazardous conditions could be made known to a user of the system, as opposed to if the measuring station was only located in the base station, in which only a smaller area of sensed conditions could be made known to a user.

Grube also teachings that the sensors used for detecting certain environmental conditions can be equipped on/in various devices such as cell phones, portable radios, etc., ***and/or any other device which transmits or receives data via a wireless communication path***. Also since the system of Grube is designed for the cellular environment (col. 2, line 65-col. 3, line 3), it is inherent to the cellular system for base stations to form cells.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art, to place the measuring stations physically at base stations since it is well known in the art that base stations communicate over a wireless communication path, and further, placing the measuring stations at the base station would have been an obvious design choice based on needed performance of the designer of the system.

Response to Arguments

6. Applicant's arguments filed January 7, 2002 have been fully considered but they are not persuasive.

Applicant argues that eventhough base stations can be portable, it doesn't mean that every portable radio fulfills the definition of a base station. Applicant also argues that eventhough a base station can be fixed or mobile, the base station is still a base station and performs functions relating to a base station such as transferring communications in a network.

Although the points argued by the applicant may be true, it still does not negate the fact that Grube teaches that the sensors can be located in equipment other than cellular phones. As discussed in the rejections above, Grube shows that these sensors can be located in a myriad of devices, including devices that receive or transmit data by means of wireless communication paths. Therefore, the teachings of Grube would include base stations, fixed or mobile, because base stations transmit data via wireless communication paths.

Based on these arguments, the claims of the present invention stand rejected in view of Grube.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schultz et al, U.S. Patent No. 5,159,315, discloses a communication system with environmental condition detection capability.

Henderson, U.S. Patent No. 4,665,385, discloses a hazardous condition monitoring system.

Comer, U.S. Patent No. 6,154,648, discloses methods and apparatus for communicating data via a cellular mobile radiotelephone system.

Janky et al, U.S. Patent No. 5,552,772, discloses location of emergency service workers.

Lusignan, U.S. Patent No. 4,972,507, discloses radio data protocol communications system and method.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temica M. Davis whose telephone number is (703) 306-5837. The examiner can normally be reached on Monday-Thursday from 6:30 am to 4:00 pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Edward Urban, can be reached on (703) 305-4385.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC2600 whose telephone number is (703)306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for any communications intended for entry).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

TMD

Temica M. Davis

January 14, 2002

EDWARD F. URBAN
PRIMARY EXAMINER